



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-1422; Directorate Identifier 2014-NM-125-AD; Amendment 39-18370; AD 2016-01-11]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 98-18-26, for certain Airbus Model A320 series airplanes. AD 98-18-26 required repetitive inspections to detect fatigue cracking of the front spar vertical stringers on the wings; and repair, if necessary. This new AD requires repetitive high frequency eddy current (HFEC) inspections for cracking of the radius of the front spar vertical stringers and the horizontal floor beam on frame 36, a rototest inspection for cracking of the fastener holes of the front spar vertical stringers on frame 36, and repair if necessary. This AD was prompted by reports that indicate new repetitive inspections having new thresholds and intervals are needed and that additional work is needed to accomplish the inspections on airplanes on which a previous modification has been accomplished. We are issuing this AD to detect and correct fatigue cracking of the front spar vertical stringers on the wings, which could result in the reduced structural integrity of the airframe.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2015-1422>; or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket Number FAA-2015-1422.

**FOR FURTHER INFORMATION CONTACT:** Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 98-18-26, Amendment 39-10742 (63 FR 47423, September 8, 1998).

AD 98-18-26 applied to certain Airbus Model A320 series airplanes. The NPRM published in the Federal Register on June 5, 2015 (80 FR 32063).

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2014-0069, dated March 19, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition on certain Airbus Model A320-211, -212, and -231 airplanes. The MCAI states:

During center fuselage certification full scale fatigue test, cracks were found on the front vertical stringer at frame 36. Analysis of these findings indicated that a number of in-service aeroplanes could be similarly affected.

This condition, if not detected and corrected, could lead to crack propagation and consequent deterioration of the structural integrity of the aeroplane.

To address this potential unsafe condition, [Directorate General for Civil Aviation] DGAC France AD 97-311-105 [which corresponds to FAA AD 98-18-26, Amendment 39-10742 (63 FR 47423, September 8, 1998)] was issued to require repetitive [HFEC] inspections [for cracking] in accordance with the instruction of Airbus Service Bulletin (SB) A320-57-1016. At the same time, the modification provided by Airbus SB A320-57-1017 was considered to be terminating action for the repetitive inspections required by DGAC France AD 97-311-105.

Since that [DGAC] AD was issued, and following new analysis, modification per Airbus SB A320-57-1017 is no longer considered to be terminating action for the repetitive inspections as required by DGAC France AD 97-311-105.

Aeroplanes with [manufacturer serial number] MSN 0080 up to 0155 inclusive have been delivered with the addition of a 5 [millimeter] mm thick light alloy shim under the heads of 2 fasteners at the top end of the front spar vertical stringers (Airbus modification 21290P1546, which is the production line equivalent to in-service modification through Airbus SB A320-57-1017). From MSN 0156 and higher, all aeroplanes are delivered with vertical stiffeners of the forward wing spar upper end with stiffener cap thickness increased from 4 to 6 mm (Airbus modification 21290P1547).

Prompted by these findings, Airbus issued SB A320-57-1178 to introduce new repetitive inspections with new thresholds and intervals.

For the reasons described above, DGAC France AD 97-311-105 is superseded and this [EASA] AD requires the repetitive inspections at new thresholds and intervals.

After EASA issued [proposed airworthiness directive] PAD 14-021, it was discovered that additional work [HFEC inspections for cracking of the radius of spar vertical stringers and horizontal beam in the center fuselage of frame 36, and a rototest inspection for cracking of the fastener holes of the spar vertical stringers radius on Frame 36 and repair if necessary], to be included in Revision 01 of Airbus SB A320-57-1178, is required to accomplish the inspections. This Final [EASA] AD has been amended accordingly.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov/#!documentDetail;D=FAA-2015-1422-0002>.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (80 FR 32063, June 5, 2015) and the FAA's response to the comments.

## **Requests for Clarification of Certain Requirements**

Delta Airlines (DAL) asked that we move the repetitive inspection intervals from paragraph (g) of the proposed AD (80 FR 32063, June 5, 2015), and create a new paragraph (i) with the repetitive inspection intervals. DAL stated that having the inspection method and the repetitive inspection intervals in one paragraph, as well as a separate paragraph for the initial inspection is cumbersome.

We do not agree with the requested changes. We re-examined the structure of the regulatory text of this AD, and have determined that the specified language as proposed is clear and aligns with the MCAI. Therefore, we have not changed this AD in this regard.

DAL also asked that we add sub-steps to requirements in the proposed AD (80 FR 32063, June 5, 2015), to clarify the inspection requirements specified in Airbus Service Bulletin A320-57-1178, Revision 01, dated May 28, 2014.

We do not agree. Our goal in referring to the Accomplishment Instructions of the service information is to ensure that operators follow the details in the inspection steps shown therein. DAL has the option of creating task cards if it makes accomplishing the sub-steps easier, provided the cards meet the intent of the AD. We have not changed this AD in this regard.

Additionally, DAL asked that Appendix 01 of Airbus Service Bulletin A320-57-1178, Revision 01, dated May 28, 2014, be removed from the service bulletin identification in the NPRM (80 FR 32063, June 5, 2015), because Appendix 01 has Gantt Chart information that should not be highlighted as a regulatory requirement for compliance.

We do not agree. The information in Appendix 01 of Airbus Service Bulletin A320-57-1178, Revision 01, dated May 28, 2014, may be helpful to operators that want to determine the number of work hours necessary to accomplish specific actions. Moreover, Appendix 01 does not contain a requirement for compliance. We have not changed this AD in this regard.

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed, with minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (80 FR 32063, June 5, 2015) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (80 FR 32063, June 5, 2015).

We have also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

### **Related Service Information under 1 CFR part 51**

Airbus has issued Service Bulletin A320-57-1178, Revision 01, dated May 28, 2014, including Appendix 01, dated May 28, 2014. The service information describes procedures for inspecting the radius of the front spar vertical stringers and the horizontal floor beam on frame 36 for cracking. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## **Costs of Compliance**

We estimate that this AD affects 17 airplanes of U.S. registry.

We also estimate that it will take about 24 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$34,680, or \$2,040 per product.

In addition, we estimate that any necessary follow-on actions will take about 49 work-hours and require parts costing \$1,210, for a cost of \$5,375 per product. We have no way of determining the number of aircraft that might need this action.

## **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on

the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2015-1422>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 98-18-26, Amendment 39-10742 (63 FR 47423, September 8, 1998), and adding the following new AD:

**2016-01-11 Airbus:** Amendment 39-18370. Docket No. FAA-2015-1422; Directorate Identifier 2014-NM-125-AD.

#### **(a) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 98-18-26, Amendment 39-10742 (63 FR 47423, September 8, 1998).

#### **(c) Applicability**

This AD applies to Airbus Model A320-211, -212, and -231 airplanes, certificated in any category, manufacturer serial numbers (MSN) 0001 through 0155 inclusive.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

#### **(e) Reason**

This AD was prompted by cracks found on the front vertical stringer at frame 36. This AD was also prompted by reports that indicate new repetitive inspections having

new thresholds and intervals are needed and that additional work is needed to accomplish the inspections on airplanes on which a previous modification has been accomplished. We are issuing this AD to detect and correct fatigue cracking of the front spar vertical stringers on the wings, which could result in the reduced structural integrity of the airframe.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Inspections**

Within the applicable compliance times specified in paragraphs (h)(1) through (h)(4) of this AD, do a high frequency eddy current (HFEC) inspection for cracking of the radius of the front spar vertical stringers and the horizontal floor beam on frame 36, and do a rototest inspection for cracking of the fastener holes of the front spar vertical stringers on frame 36, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1178, Revision 01, dated May 28, 2014, including Appendix 01, dated May 28, 2014. Repeat the inspections thereafter at the compliance times specified in paragraphs (g)(1) and (g)(2) of this AD.

(1) For Configuration 1 airplanes identified in paragraph (h)(1) of this AD: At intervals not to exceed 8,800 flight cycles or 17,700 flight hours, whichever occurs first.

(2) For Configuration 2, 3, and 4 airplanes identified in paragraphs (h)(2) through (h)(4) of this AD: At intervals not to exceed 24,900 flight cycles or 49,800 flight hours, whichever occurs first.

**(h) Compliance Times for Initial Inspections Required by Paragraph (g) of this AD**

Do the initial inspections required by paragraph (g) of this AD within the applicable compliance times specified in paragraphs (h)(1) through (h)(4) of this AD.

(1) For Configuration 1 airplanes, having MSNs 0001 through MSN 0079 inclusive, on which the modification specified by Airbus Service Bulletin A320-57-1017, dated September 3, 1991; or Airbus Service Bulletin A320-57-1017, Revision 01, dated March 17, 1997, has not been accomplished: Inspect at the later of the times specified by paragraphs (h)(1)(i) through (h)(1)(iii) of this AD.

(i) Inspect at the later of the times specified by paragraphs (h)(1)(i)(A) and (h)(1)(i)(B) of this AD.

(A) Prior to the accumulation of 24,000 flight cycles or 48,000 flight hours, whichever occurs first since airplane first flight.

(B) Within 60 days after the effective date of this AD.

(ii) Inspect within 8,800 flight cycles or 17,700 flight hours, whichever occurs first, since the last inspection specified in Airbus Service Bulletin A320-57-1016 was accomplished.

(iii) Inspect within 850 flight cycles or 1,700 flight hours, whichever occurs first, after the effective date of this AD, without exceeding 14,000 flight cycles after the last inspection specified in Airbus Service Bulletin A320-57-1016 was accomplished.

(2) For Configuration 2 airplanes, having MSNs 0001 through 0079 inclusive, on which the actions specified by Airbus Service Bulletin A320-57-1016, have not been done prior to accomplishing the actions specified by Airbus Service Bulletin

A320-57-1017, dated September 3, 1991; or Airbus Service Bulletin A320-57-1017, Revision 01, dated March 17, 1997: Inspect at the later of the times specified by paragraphs (h)(2)(i) and (h)(2)(ii) of this AD.

(i) Within 8,800 flight cycles or 17,700 flight hours, whichever occurs first, since the modification specified in Airbus Service Bulletin A320-57-1017, dated September 3, 1991; or Airbus Service Bulletin A320-57-1017, Revision 01, dated December 6, 1995, was accomplished.

(ii) Within 850 flight cycles or 1,700 flight hours, whichever occurs first, after the effective date of this AD.

(3) For Configuration 3 airplanes, having MSNs 0001 through 0079 inclusive, on which the actions specified by Airbus Service Bulletin A320-57-1016, have been done prior to accomplishing the actions specified by Airbus Service Bulletin A320-57-1017, dated September 3, 1991; or Airbus Service Bulletin A320-57-1017, Revision 01, dated March 17, 1997: Inspect at the later of the times specified by paragraphs (h)(3)(i) and (h)(3)(ii) of this AD.

(i) Within 24,900 flight cycles or 49,800 flight hours, whichever occurs first, since the modification specified in Airbus Service Bulletin A320-57-1017, dated September 3, 1991; or Airbus Service Bulletin A320-57-1017, Revision 01, dated March 17, 1997, was accomplished.

(ii) Within 850 flight cycles or 1,700 flight hours, whichever occurs first, after the effective date of this AD.

(4) For Configuration 4 airplanes, having MSNs 0080 through 0155 inclusive:  
Inspect at the later of the times specified in paragraphs (h)(4)(i) or (h)(4)(ii) of this AD.

(i) Prior to the accumulation of 54,300 flight cycles or 108,600 flight hours,  
whichever occurs first since airplane first flight.

(ii) Within 60 days after the effective date of this AD.

**(i) Repair**

If any crack is detected during any inspection required by paragraph (g) of this AD: Before further flight, repair using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA).

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC,

notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

**(k) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2014-0069, dated March 19, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-1422.

**(l) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Airbus Service Bulletin A320-57-1178, Revision 01, dated May 28, 2014, including Appendix 01, dated May 28, 2014.

(ii) Reserved.

(4) For service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>.

(5) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(6) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:  
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on December 31, 2015.

Philip Forde,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2016-00373 Filed: 1/20/2016 8:45 am; Publication Date: 1/21/2016]